

2005 Clarke Prize Laureate

Menachem Elimelech, Ph.D.

*Roberto C. Goizueta Professor of Chemical and Environmental Engineering
Yale University*

For over 16 years, water-quality engineer Dr. Menachem Elimelech has made groundbreaking contributions to the basic understanding of the physical and chemical processes for improving drinking-water quality. His research on the fate and transport of colloidal particles and microbial pathogens, like viruses and *Cryptosporidium*, in aquatic environments has proven critical in the removal of such contaminants from water. He has also significantly impacted the areas of water recycling and pollution control through his research on the effective use of membrane technologies for removing emerging contaminants from water. Among his many achievements, he has advanced the process called “ammonia-carbon dioxide forward osmosis” for desalinating brackish and sea waters, which is anticipated to be more cost-effective than traditional desalination processes.



Recently, Dr. Elimelech was named the Roberto C. Goizueta Professor of Chemical and Environmental Engineering at Yale University, where he has taught since 1998. He is also the founder and current Director of Yale’s Environmental Engineering program. An esteemed scholar as well as a researcher, he has authored over 110 refereed journal publications and is the principal author of the widely cited book, *Particle Deposition and Aggregation* (1995). He is also a member of the advisory boards of several leading journals in science and engineering, including *Colloids and Surfaces A*, *Desalination*, *Environmental Science & Technology*, *Environmental Engineering Science*, and *Separation Science and Technology*.